Tempe Fire Department Policies and Procedures
Standard of Response Coverage
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PURPOSE

To define the concept of Standard of Response Covererage and to describe its use and importance to the Tempe Fire Department.

Standard of Response Cover is defined by the Commission on Fire Accreditation International as "Written policies and procedures that establish the distribution and concentration of fixed and mobile resources of an organization." It describes the deployment or "coverage" for a given community or area. A Standard of Response Coverage is more than a standard it is a system that includes an analysis of risks and expectations to assist in making decisions on deployment issues.

Standard of Response Coverage is very important to the Tempe Fire Department and goes to the heart of the Department's approach to emergency service delivery. Included in this concept is the community risk assessment, fire station location, fire company distribution, fire company staffing, response time goals and analysis and fire flow**.**

The Community Risk Assessment identifies both fire and non-fire risks in each management district and places the risk in a risk category. Risk categories include:

Maximum Fire Risk – Hazards that require the maximum amount of fire prorection resources or which could result in the greatest loss of life or property.
Examples are: Malls, Multi-story apartments, large department stores, theaters, entertainment centers, large industrial or commercial properties and hazardous materials production facilities.

Special Hazard Fire Risk – Hazards which if destroyed would be a critical or essential economic loss to the community. This could also include cultural, environmental, governmental, or historical loss.
Examples are: Strip centers, hospitals or medical facilities, apartment buildings of two or more stories, governmental infrastructure facilities, and schools..

Typical Hazard Fire Risk – Those risks most common to the planning area.
Examples are: Single family housing, easily accessible one and two story apartments, low risk industrial properties, and commercial properties under 10,000 square feet..

Remote Hazard Fire Risk – Those risks most distant from other risks as to be almost unique to the planning area.
Examples are: Rural land, unoccupied structures, and recreational areas..

Non Fire-Maximum Hazard Risk – Hazards not involved with fire which require the maximum amount of fire department manpower to control or hazards which could result in the greatest loss of life or property.
Examples are: Water plants, health care centers, large employer business facilities.

Non Fire-Special Hazard Risk – Hazards not involved with fire that could pose a special fire department manpower requirement.
Examples are: Stadiums, auditoriums, and large recreational facilities.

Non Fire-Typical Hazard Risk – Hazards not involved with fire which generally are typical in nature for the management district planning area.
Examples are: Single family residences, freeways, apartments, and motor vehicle accidents.

Non Fire-Remote Hazard Risk – Hazards not involved with fire which present a unique problem with efforts towards rescue, hazardous materials, and EMS services.
Examples are: Railroads, canals, mountains, block parties, stadiums, malls, and lakes.

The completed risk assessment for Tempe is developed and managed by the Fire Prevention and Public Safety Education Division. The risk assessment is provided to all fire companies by management district through the Firehouse information management system and is updated routinely.

Standards of Response Coverage consists of three key elements:

Distribution – Station and resource locations needed to insure rapid response

Concentration – Spacing of multiple resources arranged so that an initial "effective response force" can arrive on scene within sufficient time frames

Staffing levels – numbers of personnel and their task assignments

Department Long Term Response Time Goal

As reflected in the Six Year Strategic Plan and Operational Guide the Department's goal is "To deliver emergency services in a safe and efficient manner, with a response time of 5:00 minutes or less, 75% of the time. (From time of call receipt to arrival).

Definition of Response Time

The Tempe Fire Department defines response time as the total amount of time that elapses from the time that the fire communications center receives an alarm until the responding unit is on the scene of the emergency and prepared to control the situation.

Components of Response Time

Alarm Processing Time – CFAI Benchmark is 60 seconds. Phoenix Communications Center benchmark is 50 seconds. Current average for Tempe Fire Department is one minute and 2 seconds.

Turnout Time – The Tempe Goal is 45 seconds for incidents not requiring protective turnout clothing and 60 seconds for incidents that require donning of protective turnout clothing. Current average turnout time for Tempe Fire Department is 35 seconds.

Travel Time – The elapsed time from when a unit acknowledges response until arrival on the emergency scene. Tempe Fire Department average travel time is 3 minutes and 58 seconds.

Current Response Time Record

The average response time for 2001 was 5 minutes and 24 seconds.

3 minutes or less 8% of the time
4 minutes or less 19% of the time
5 minutes or less 45% of the time
6 minutes or less 73% of the time
7 minutes or less 88% of the time
8 minutes or less 94% of the time
Greater than 8 minutes 6% of the time

This response time data is for arrival of the first fire company. Measurement and tracking is also done on arrival of the complete 2&1 assignment and the complete first alarm assignment.
Each of these measurements is important in analyzing the Department's overall emergency response capability.

Strategic Accomplishments for Response Time Improvement

Fire Station #5 with new fire company in North Tempe – 1995
New Fire Station #1 – 1999
Traffic Signal Preemption – 140 intersections complete-32 remaining to complete by end of 2002
Enhanced automatic aid with City of Chandler – 2002

Initiation of Automatic Aid with City of Mesa – 1997
Automatic Vehicle Locator for Dispatching - 1995

Strategic Plans for response Time Improvement

New Fire Station #6 – First Quarter 2003
Last 32 intersections of traffic signal preemption – Fourth Quarter 2002
Enhanced Automatic Aid with City of Mesa – Fourth Quarter 2002
Additional fire station in southeast quadrant - 2005
Heavy Rescue Unit – Time frame unknown at this time

Current Fire Station Location and Fire Company Distribution

Fire Station #1 – 1450 E. Apache Boulevard

Engine 271
Battalion 271
Scene Support 271
Police – Fire Command Van

Fire Station #2 – 3300 S. Hardy Drive

Engine 272
Engine 277
Hazardous Materials Van – 272

Fire Station #3 – 5440 S. McClintock

Engine 273
Ladder 273

Fire Station #4 – 300 E. Elliot

Engine 272

Fire Station #5 – 755 E. Curry Road

Engine 275

Fire Station #6 – 1000 E. University Drive

Engine 276
Ladder 276
Ladder Tender 276
Technical Rescue Trailer

Fire/Rescue Boat located at North side Marina

Staffing for Emergency Incidents

Engine Companies – Staffed with a minimum of four personnel each shift

Ladder Company– Staffed with a minimum of four personnel each shift

Battalion Command Vehicle -Staffed with a minimum of two personnel each shift

Ladder Tender – Same personnel as assigned ladder company

Hazardous Materials Van – Staffed from one person from an on-duty company when required

Fire/Rescue Boat – Staffed by crew members from Engine-275 or Ladder – 276

Command Van - Dispatched from Phoenix and staffed by an Engineer

Tempe Police/Fire Command Van – Staffed by Tempe Police

Types of Responses and Response Philosophy

Responses to incidents are determined by type of incident, type of structure and description of incident to call taker in the communications center.

Responses are designed to be strong, both in terms of apparatus and staffing. Firefighter safety and citizen service delivery are key components of the type of response and staffing determination. Minimum staffing for an initial structure fire response is 18 personnel and on determination that it is a working fire goes to a minimum of 25 personnel.

A summary of types of responses is as follows:

Still Assignment – Car fire, trash fire, grass fire – One unit (4 personnel)

EMS Assignment – Difficulty breathing, auto accident - One unit (4 personnel)

2&1 Assignment – Serious Medical Incidents – Two engines, one ladder and one Battalion Chief (14 personnel)

3&1 Assignment – structure fire – Three engines, one ladder, two Battalion Chiefs (20 personnel)

3&1 RIC – Working structure fire – Scene Support and Additional engine for rapid intervention crew (25 personnel)

First Alarm – Structure fire - Four engines, two ladders, two battalion chiefs, one scene support, one command van, and one rehabilitation van (31 personnel)

Companies are not dispatched by district or station but by automatic vehicle locator through the computer aided dispatch system. Units are tracked by satellite and dispatched by real time location as opposed to a fixed location type system.

National Fire Protection Association – 1710

This document establishes a response time objective of four minutes or less for the arrival of the first arriving engine company at a fire suppression incident and/or 8 minutes or less for the deployment of a full first alarm assignment at a fire suppression incident. In each instance a performance objective is specified of 90%.

Tempe Fire Department currently reports times as outlined in Commission on Fire Accreditation International documents.

The NFPA defines response time for purposes of this document as “the time that begins when units are notified and ends with the arrival at the scene of an emergency incident.”

During the balance of 2002 the Department will be analyzing 1710, its ability to meet its provisions and making a decision as to whether to modify its response time goal to coincide with NFPA 1710.